

## CLAIMS

1. An isolated and purified polynucleotide capable of expressing the CALR homolog.
2. The polynucleotide of claim 1 further comprising control sequences for overexpression of calr.
- 5 3. The polynucleotide of claim 1 comprising a recombinant DNA molecule whose nucleotide sequence is shown as SEQ ID NO 1.
4. A diagnostic test for diseases associated with altered expression of the polynucleotide of claim 1 comprising the steps of:
  - a) providing a biological sample; and
  - 10 b) combining the biological sample with the polynucleotide of claim 1 or a fragment thereof.
5. The diagnostic test of claim 4 wherein the disease is associated with immune system dysfunction.
6. The antisense DNA of the polynucleotide of claim 1.
- 15 7. An expression vector comprising the polynucleotide of claim 1.
8. A host cell transformed with the expression vector of claim 7.
9. A method for producing CALR, said method comprising the steps of:
  - a) culturing the host cells of claim 8 under conditions suitable for the expression of CALR; and
  - 20 b) recovering CALR from the cell culture.
10. A purified CALR polypeptide whose amino acid sequence is shown in SEQ ID NO 2.
11. An antagonist or inhibitor specific for the polypeptide of claim 10.

add  
a<sup>3</sup>

add  
b<sup>3</sup>